Abstract

A single treatment with bovine somatotropin (bST) was administered at the time of insemination to repeat-breeding Holstein cows to test its effect on conception rate. A total of 316 cows with at least three unsuccessful previous services were used and were randomly assigned to be treated (bST; n=175) or not (control; n=141) with 500 mg of bST administered subcutaneously at the time of artificial insemination. Pregnancy was confirmed by transrectal palpation 45 ± 3 d after insemination. The effect of bST treatment on serum IGF-I and progesterone concentrations was determined in daily blood samples from the day of insemination to d 10 post-insemination, in seven cows per group. Treatment with bST increased conception rate [81/175 (46 %) vs 49/141 (35 %)]; P <0.01). Treatment with bST increased IGF-1 concentrations ( P <0.001). Serum progesterone concentrations did not differ ( P =0.68) between groups. In conclusion, a single bST treatment at the time of insemination increased conception rate in repeat-breeding Holstein cows.

Keywords

BST, Fertility, Repeat-breeding, Holstein cows.